

WHAT IS CLAIMED IS:

1. A method of manufacturing a semiconductor device, comprising:

(a) fixing a cover onto a semiconductor substrate so as to place a surface of the cover that includes a portion defining a first opening, face to face on a surface of the semiconductor substrate that includes an electrode; and

(b) applying an adhesive inside the first opening.

2. The method of manufacturing a semiconductor device according to claim 1, further comprising:

forming a translucent portion in at least a part of the cover;

forming an optical unit on the semiconductor substrate;

fixing the cover onto the semiconductor substrate so as to provide the first opening of the cover on a portion of the semiconductor substrate other than the optical unit, and to provide the translucent portion on the optical unit as defined in step (a); and

sealing the optical unit as defined in steps (a) and (b).

3. The method of manufacturing a semiconductor device according to claim 2, further comprising:

forming a portion defining a second opening in the surface of the cover that includes the portion defining the first opening; and

fixing the cover onto the semiconductor substrate so as to provide the optical unit in the second opening as defined in step (a).

4. The method of manufacturing a semiconductor device according to claim 3, further comprising providing the first opening so as to surround the second opening.

5. The method of manufacturing a semiconductor device according to claim 3, further comprising:

forming an electrode on another surface of the semiconductor substrate;

forming a portion defining a third opening in the surface of the cover that includes the portion defining the first opening; and

fixing the cover onto the semiconductor substrate so as to provide the

electrode in the third opening as defined in step (b).

6. The method of manufacturing a semiconductor device according to claim 5 further comprising providing the third opening so as to surround the first opening and the second opening.

7. The method of manufacturing a semiconductor device according to claim 1, further comprising:

forming a portion defining a through-hole that extends from a back side of the surface that includes the portion defining the first opening to inside the first opening in the cover; and

applying the adhesive from the through-hole so as to provide the adhesive to the first opening as defined in step (b).

8. The method of manufacturing a semiconductor device according to claim 7, further comprising:

forming a portion that is formed in line along the cover in the portion defining the first opening wherein the portion defining the through-hole is a slit that is formed in line on the portion of the first opening that is formed in line.

9. The method of manufacturing a semiconductor device according to claim 1, further comprising:

forming the first opening so as to penetrate from one side of the cover to another side of the cover; and

applying the adhesive to the first opening from any one of the sides of the cover as defined in step (b).

10. The method of manufacturing a semiconductor device according to claim 2, further comprising:

forming a plurality of portions that are each to be an optical chip that includes the optical unit in the semiconductor substrate; and

(d) dividing the semiconductor substrate into individual pieces of the optical chip where the optical unit is sealed.

11. The method of manufacturing a semiconductor device according to

claim 10, further comprising dividing the cover into individual pieces and removing a portion of the cover that faces the electrode.

12. A semiconductor device that is manufactured by the method according to claim 1.

13. The semiconductor device according to claim 12, further comprising a support member attached to the semiconductor device.

14. The semiconductor device according to claim 12, further comprising: a circuit substrate that is electrically coupled to the electrode of the semiconductor device.

15. An electronic equipment comprising:
the semiconductor device according to claim 12.

16. A cover for a semiconductor device, comprising:
a portion defining a first opening on a surface of the cover;
a portion defining a second opening on the surface of the cover; and
a translucent portion in at least the portion defining the second opening,
wherein the first opening is formed along a circumference of the second opening, and the second opening is formed so as to include an optical unit inside of the second opening and wherein the optical unit of the semiconductor substrate that includes the optical unit is sealed.

17. The cover for a semiconductor device according to claim 16, wherein the first opening is formed so as to surround the second opening.

18. The cover for a semiconductor device according to claim 16, further comprising:
a portion defining a third opening on the surface that includes the portion defining the first opening and the portion defining the second opening and wherein the third opening is formed along a circumference of the second opening.

19. The cover for a semiconductor device according to claim 16, wherein the first opening is formed between the second opening and the third opening.

20. The cover for a semiconductor device according to claim 16, further comprising a portion defining a through-hole that extends from a back side of the surface that includes the portion defining the first opening to inside the first opening.

21. The cover for a semiconductor device according to claim 20, further comprising:

a portion that is formed in line along the cover; and
a slit that is formed in line on the portion of the first opening that is formed in line.

22. The cover for a semiconductor device according to claim 16, wherein the first opening is formed so as to penetrate from one side of the cover to the other side of the cover.

23. A cover for a semiconductor device, comprising:
a portion defining a first opening on a surface of the cover;
a portion defining a second opening on the surface of the cover; and
a translucent portion in at least the portion defining the second opening, wherein the first opening is formed along a circumference of the second opening, and the second opening is formed so as to include the an optical unit inside of the second opening.